

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK FFIC

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Subroto CHATTERJEE

WARNING: 37 C.F.R. § 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors."

For (title): RECOMBINANT N-SMASES AND NUCLEIC ACIDS ENCODING SAME

CERTIFICATION UNDER 37 C.F.R. § 1.10*

(Express Mail label number is mandatory.) (Express Mail certification is optional.)

I hereby certify that this New Application Transmittal and the documents referred to as attached therein are being deposited with the United States Postal Service on this date <u>March 31, 1999</u>, in an envelope as "Express Mail Post Office to Addressee," mailing Label Number <u>E1978002454US</u>, addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Deanna M. Landry

(type or print name of person mailing paper)

Signature of person mailing paper

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. § 1.8-cannot be used to obtain a date of mailing or transmission for this correspondence.

*WARNING: Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. § 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mall mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

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1. Type of Application

This new application is for a(n)

(check one applicable item below)

□ Original (nonprovisional)
□ Design
□ Plant

WARNING: Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. § 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application.

WARNING: Do not use this transmittal for the filing of a provisional application.

NOTE: If one of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.

□ Divisional.
□ Continuation-in-part (C-I-P).

2. Benefit of Prior U.S. Application(s) (35 U.S.C. §§ 119(e), 120, or 121)

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. § 112. Each prior application must also be:

- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or
 - (ii) Complete as set forth in § 1.51(b); or
- (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
- (iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(f) within the time period set forth in § 1.53(f).

37 C.F.R. § 1.78(a)(1).

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. §§ 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. §§ 120, 121 or 365(c). (35 U.S.C. § 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. §§ 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

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- WARNING: When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisi nal application claiming benefit f the provisional application must be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).
 - The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

3. Papers Enclosed

A.			d for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 C.F.R. § 1.153 Application		
_3	_37_ Pages of specification				
	4_ P	ages	of claims		
	Z s	heets	s of drawing		
WAF	RNING 	filia sm dn the Fo	O NOT submit original drawings. A high quality copy of the drawings should be supplied when ing a patent application. The drawings that are submitted to the Office must be on strong, white, nooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the awings are necessary, they should be made to the original drawing and a high-quality copy of a corrected original drawing then submitted to the Office. Only one copy is required or desired. It comments on proposed then-new 37 C.F.R. § 1.84, see Notice of March 9, 1988 (1990 O.G. 1-62).		
NOT	in th	vento ne Offi n the	lying indicia, if provided, should include the application number or the title of the invention, or's name, docket number (if any), and the name and telephone number of a person to call if the ince is unable to match the drawings to the proper application. This information should be placed back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top page " 37 C.F.R. § 1.84(c)).		
			(complete the following, if applicable)		
		"PE	e enclosed drawing(s) are photograph(s), and there is also attached a ETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R84(b).		
		form	nal		
		info	rmal		
B.	Oth	er P	apers Enclosed		
_3	_ P	ages	of declaration and power of attorney		
_1	_ P	ages	of abstract		
	_ 0	ther			
. А	dditi	ional	papers enclosed		
	\mathbf{x}	Am	endment to claims		
		X	Cancel in this applications claims before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)		
			Add the claims shown on the attached amendment. (Claims added have been numbered consecutively following the highest numbered original claims.)		
	X	Pre	liminary Amendment		
		Info	rmation Disclosure Statement (37 C.F.R. § 1.98)		
		Fon	m PTO-1449 (PTO/SB/08A and 08B)		
		Cita	ations		

L	_	Declaration of Biologic	cal Deposit
D	X	Submission of "Seque pertaining thereto for amino acid sequence.	nce Listing," computer readable copy and/or amendmen biotechnology invention containing nucleotide and/o
		Authorization of Attorn tive	ey(s) to Accept and Follow Instructions from Representa
C		Special Comments	
)	Other	
5. Dec	clai	ation or oath (includi	ng power of attorney)
	A the by spe de pe	newly executed declaration in prior nonprovisional applica- all or fewer than all the involication being filed, and a consideration that a statement requesting deleting filed. If the declaration claration must be filed accompany under § 1.47 has subse	is not required in a continuation or divisional application provided that atton contained a declaration as required, the application being filed is sentors named in the prior application, there is no new matter in the copy of the executed declaration filed in the prior application (showing the ereon that it was signed) is submitted. The copy must be accompanied tion of the names of person(s) who are not inventors of the application in the prior application was filed under § 1.47, then a copy of that panied by a copy of the decision granting § 1.47 status or, if a nonsigning equently joined in a prior application, then a copy of the subsequently filed. See 37 C.F.R. §§ 1.63(d)(1)—(3).
NOTE:	ab ∞	precied, identity each invento previation together with any o	an application must be executed, identify the specification to which it is by full name including family name and at least one given name, without other given name or initial, and the residence, post office address and inventor, and state whether the inventor is a sole or joint inventor. 37
X]	Enclosed Copy file	ed in the parent nonprovisional application
		Executed by	
		(ch	eck all applicable boxes)
		🗓 inventor(s).	•
		legal representative 37 C.F.R. §§ 1.42	
	1	joint inventor or p interest on behalf o or cannot be reach	erson showing a proprietary f inventor who refused to sign ned.
		☐ This is the required b for fee.	petition required by 37 C.F.R. § 1.47 and the statement by 37 C.F.R. § 1.47 is also attached. See item 13 below
		Not Enclosed.	
	me)	U.S. application contains sul v be treated as a continuatio	in the U.S. of an International Application or where the completion of oject matter in addition to the International Application, the application or continuation-in-part, as the case may be; utilizing ADDED PAGE SMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.
	{	Application is mad behalf of all the ab	e by a person authorized under 37 C.F.R. § 1.41(c) on ove named inventor(s).
(The d	dec	laration or oath, along can	with the surcharge required by 37 C.F.R. § 1.16(e) be filed subsequently).
			hat the filing is authorized. ed unless called into question. 37 C.F.R. § 1.41(d))
			(New Application Transmittal [4-1]—page 4 of 11)

O. HIV III	orship stat in int
WARNING:	If the named inventors are each not the inventors f all the claims an explanation, including the ownership of the various claims at the tim the last claim d invention was made, should be submitted.
The inve	ntorship for all the claims in this application are:
	The same.
	or
	Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,
	is submitted.
	☐ will be submitted.
7. Langua	age
An rec	application including a signed oath or declaration may be filed in a language other than English. English translation of the non-English language application and the processing fee of \$130.00 quired by 37 C.F.R. § 1.17(k) is required to be filed with the application, or within such time as may set by the Office. 37 C.F.R. § 1.52(d).
X	English
	Non-English
	☐ The attached translation includes a statement that the translation is accurate. 37 C.F.R. § 1.52(d).
8. Assign	ment
X	An assignment of the invention to <u>Johns Hopkins University of Bal</u> timore
	Maryland (copy filed with the parent nonprovisional application enclosed
	is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCU- MENT) ACCOMPANYING NEW PATENT APPLICATION" or ☑ FORM PTO 1595 is also attached. (copy)
	□ will follow.
NOTE: "If and	an assignment is submitted with a new application, send two separate letters-one for the application of one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).
WARNING:	A newly executed "CERTIFICATE UNDER 37 C.F.R. § 3.73(b)" must be filed when a continuation- in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.

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9. Certified Copy

Certified copy(ies) of application(s)

Cou	ntry		Appln.	No.		Filed
Cou	ntry		Appin.	No.		Filed
Cour	ntry		Appln.	No.	-	Filed
from wh	ich priority is cla	imed	• • • • • • • • • • • • • • • • • • • •			riied
	is (are) attache					
	will follow.					
NOTE:	The foreign application declaration. 37 C.F.F.	on forming the ball. § 1.55(a) and 1	asis for the	claim for	priority must be	referred to in the oath o
	§ 120 is itself entitled	temational Applic I to priority from a PPLICATION TRA	ation from a prior forei NSMITTAL	which this an applica	s application clain ation, then comple	ectly relates. If any paren is benefit under 35 U.S.C ite item 18 on the ADDEL OR U.S. APPLICATION(S
A. 🛚	Regular applic	ation				
		CLA	IMS AS	FILED		
Nur	mber filed	Nur	nber Ext	ra	Rate	Basic Fee 37 C.F.R. 1.16(a) \$760.00
Total						
iaims (3 1.16(c)	37 C.F.R.) 18	00	0		A	
ndepend		- 20 =		×	\$ 18.00	
•	37 C.F.R.					
1.16(b)		- 3 =	1	×	\$ 78.00	78.00
	dependent claim(7 C.F.R. § 1.16(+	\$260.00	
	Amandanak					
	Amendment ca					•
	Amendment de					
NOTE: A	Fee for extra c					
P	rthe lees for extra ciall prior to the expiration notice of fee deficienc	Of the time perio	d set for re	must be p esponse b	eaid or the claims on the Patent and	cancelled by amendment, Trademark Office in any
		Filing Fee	Calculati	on	;	838.00
B. 🗆	Design applicat (\$310.00—37 C))			
		Filing Fee	-	on	•	
c. \Box	Plant application (\$480.00—37 C	n			·	
		Filing fee o		n	\$	
		·g		• •	32	

11. Small	Entity Statement(s)
	Statement(s) that this is a filing by a small entity under 37 C.F.R. § 1.9 and 1.27 is (are) attached.
WARNING:	"Status as a small entity must be specifically established in each application or patent in which the status is available and desired. Status as a small entity in one application or patent does not affect any other application or patent, including applications or patents which are directly or indirectly dependent upon the application or patent in which the status has been established. The refiling of an application under § 1.53 as a continuation, division, or continuation-in-part (including a continued prosecution application under § 1.53(d)), or the filing of a reissue application requires a new determination as to continued entitlement to small entity status for the continuing or reissue application. A nonprovisional application claiming benefit under 35 U.S.C. § 119(e), 120, 121, or 365(c) of a prior application, or a reissue application may rely on a statement filed in the prior application or in the patent of the nonprovisional application or the reissue application includes a reference to the statement in the prior application or in the patent or includes a copy of the statement in the prior application or in the patent and status as a small entity is still proper and desired. The payment of the small entity basic statutory filing fee will be treated as such a reference for purposes of this section." 37 C.F.R. § 1.28(a)(2).
WARNING:	"Small entity status must not be established when the person or persons signing the statement can unequivocally make the required self-certification." M.P.E.P., § 509.03, 6th ed., rev. 2, July 1996 (emphasis added).
	(complete the following, if applicable)
X	Status as a small entity was claimed in prior application
	08/77/4,104 , filed on 12/24/96 , from which benefit
	is being claimed for this application under:
	35 U.S.C. § ☐ 119(e), ☐ 120,
	□ 121, □ 365(c),
	and which status as a small entity is still proper and desired.
	A copy of the statement in the prior application is included.
	Filing Fee Calculation (50% of A, B or C above)
NOTE: An	\$ 419.00
are	y excess of the full fee paid will be refunded if small entitiy status is established and a refund request filed within 2 months of the date of timely payment of a full fee. The two-month period is not endable under § 1.136. 37 C.F.R. § 1.28(a).
12. Reque	est for International-Type Search (37 C.F.R. § 1.104(d))
	(complete, if applicable)
	Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

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13. Fee	Payment Being Made at This Ti	me	
	Not Enclosed		
	☐ No filing fee is to be paid at (This and the surcharge resubsequently.)	this time. quired by 37 C.F.R. § 1	.16(e) can be paid
X	Enclosed		
	☑ Filing fee		\$ 419.00
	☐ Recording assignment (\$40.00; 37 C.F.R. § 1.21(h); (See attached "COVER SHE ASSIGNMENT ACCOMPANY APPLICATION".)	ET FOR	\$
	Petition fee for filing by other inventors or person on behat where inventor refused to sit reached (\$130.00; 37 C.F.R. §§ 1.47	alf of the inventor gn or cannot be	\$
	For processing an application specification in a non-English language (\$130.00; 37 C.F.R. §§ 1.52)	on with a	\$
	□ Processing and retention fee (\$130.00; 37 C.F.R. §§ 1.53(\$
	Fee for international-type sea (\$40.00; 37 C.F.R. § 1.21(e))	arch report	\$
fai 37 eit	C.F.R. § 1.21(I) establishes a fee for proce ing to complete the application pursuant t C.F.R. §§ 1.53 and 1.78(a)(1), indicate that her the basic filing fee must be paid, or the thin 1 year from notification under § 53(f).	o 37 C.F.R. § 1.53(f) and this, as t in order to obtain the benefit of	well as the changes to a prior U.S. application.
	Total fees encl	osed \$.	419.00
14. Meth	od of Payment of Fees		
	Check in the amount of $$419$.		
	Charge Account No \$		the amount of
	A duplicate of this transmittal is a		
NOTE: Fe	es should be itemized in such a manner tha 1.22(b).	t it is clear for which purpose the	fees are paid. 37 C.F.R.

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§ 1.136(a)(3).

15. Au	rth riz	ati n t Charg Additi nal Fees
WARNI	NG: If	no fees are to be paid n filing, the following items should not be completed.
WARNI		ccurately count claims, especially multiple dependent claims, to avoid unexpected high charges, extra claim charges are authorized.
. (2	by	Commissioner is hereby authorized to charge the following additional fees this paper and during the entire pendency of this application to Account No. 04-1105 ::
	X	37 C.F.R. § 1.16(a), (f) or (g) (filing fees)
	X	37 C.F.R. § 1.16(b), (c) and (d) (presentation of extra claims)
NOTE:	must of set for to auth	se additional fees for excess or multiple dependent claims not paid on filing or on later presentation only be paid or these claims cancelled by amendment prior to the expiration of the time period response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.16(d)), it might be best not norize the PTO to charge additional claim fees, except possibly when dealing with amendments and action.
		37 C.F.R. § 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)
		37 C.F.R. § 1.17(a)(1)-(5) (extension fees pursuant to § 1.136(a)).
	X	37 C.F.R. § 1.17 (application processing fees)
NOTE:	or futur as inco charge constr	written request may be submitted in an application that is an authorization to treat any concurrent re reply, requiring a petition for an extension of time under this paragraph for its timely submission, proporating a petition for extension of time for the appropriate length of time. An authorization to all required fees, fees under § 1.17, or all required extension of time fees will be treated as a auctive petition for an extension of time in any concurrent or future reply requiring a petition for ension of time under this paragraph for its timely submission. Submission of the fee set forth in

☐ 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))

§ 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R.

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 C.F.R. § 1.311(b).

NOTE: 37 C.F.R. § 1.28(b) requires "Notification of any change in status resulting in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying, . . . the issue fee. . . " From the wording of 37 C.F.R. § 1.28(b), (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

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a	" Amounts of twenty-five dollars or less will not be returned unless specifically requested with a reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars ma be returned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).
X	Credit Account No. <u>04-1105</u>
	Refund
	·

Reg. No. 33,860

Tel. No. (617) 523-3400

Customer No.

SIGNATURE OF PRACTITIONER

Peter F. Corless

(type or print name of attorney)
Dike, Bronstein, Roberts & Cushman, LLP

130 Water Street

P.O. Address

Boston, MA 02109

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		portal in by rotoronoo or added pages
	pi st th	heck the following item if the application in this transmittal claims the benefit of rior U.S. application(s) (including an International application entering the U.S. age as a continuation, divisional or C-I-P application) and complete and attach e ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF RIOR U.S. APPLICATION(S) CLAIMED)
	[3]	Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed
		Number of pages added5
	X	Plus Added Pages for Papers Referred to in Item 4 Above
		Number of pages added23
		Plus added pages deleting names of inventor(s) named in prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application.
		Number of pages added
		Plus "Assignment Cover Letter Accompanying New Application"
		Number of pages added
	State	ment Where No Further Pages Added
	(if th	no further pages form a part of this Transmittal, then end this Transmittal with is page and check the following item)

 $\hfill\square$ This transmittal ends with this page.

ADDED PAGES FOR APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED

NOTE: See 37 CFR 1.78.

17. Relate Back

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. 120, 121 or 365(c). (35 U.S.C. 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

(complete the following, if applicable)

	X	Amend the specification by inserting, before the first line, the following sentence:
A. 3	35 U.	S.C. 119(e)

NOTE: "Any nonprovisional application claiming the benefit of one or more prior filed copending provisional applications must contain or be amended to contain in the first sentence of the specification following the title a reference to each such prior provisional application, identifying it as a provisional application, and including the provisional application number (consisting of series code and serial number), "37 C.F.R. § 1.78(a)(4).

"This application claims the benefit of U.S. Provisional Application(s) No(s).:

APPLICATION NO(S).:	FILING DATE
/	

(Added Pages for Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed

[4-1.1]—page 1 of 5)

B. 35	U.S.C. 120, 121 and 365(c)	
NOTE:	"Except for a continued prosecution application filed under § claiming the benefit of one or more prior filed copending nonpapplications designating the United States of America must co first sentence of the specification following the title a reference to it by application number (consisting of the series code and ser number and international filing date and indicating the relation references to other related applications may be made when ap § 1.78(a)(2).	provisional applications or international intain or be amended to contain in the each such prior application, identifying ial number) or international applications
C	This application is a	
	continuation	
	☐ continuation-in-part	
	🗓 divisional	
(of copending application(s)	
5	application number 0 8/_774,104	filed on12/24/96 .
	International Application	filed on
	and which designated	
NOTE:	The proper reference to a prior filed PCT application that entenserial number and the filing date of the PCT application that de-	ed the U.S. national phase is the U.S. esignated the U.S.
NOTE:	(1) Where the application being transmitted adds subject matter the filing can be as a continuation-in-part or (2) if it is desired to can be as a continuation.	r to the International Application, ther do so for other reasons then the filing
NOTE:	The deadline for entering the national phase in the U.S. for an in the Notice of April 28, 1987 (1079 O.G. 32 to 46) as follows	international application was clarified :
	"The Patent and Trademark Office considers the International apmonth from the priority date if the United States has been design Preliminary Examination has been filed prior to the expiration of and until the 32nd month from the priority date if a Demand for which elected the United States of America has been filed prior from the priority date, provided that a copy of the international to the Patent and Trademark Office within the 20 or 30 month international application has not been communicated to the Pa 20 or 30 month period respectively, the international application States 20 or 30 months from the priority date respectively. These as paragraph (h) of § 1.494 and paragraph (i) of § 1.495. A continuand 120 may be filed anytime during the pendency of the international	nated and no Demand for International the 19th month from the priority date. International Preliminary Examination of the 19th month application has been communicated period respectively. If a copy of the tent and Trademark Office within the becomes abandoned as to the United periods have been placed in the rules ining application under 35 U.S.C. 365(c) national application."
	and the treatment application designated above	
	U.S. Provisional Application(s) No(s).:	, claims the benefit of
	ATION NO(S).:	FILING DATE
	/	
	/	
	/	
	Where more than one reference is made above, into one sentence.	please combine all references

18. R lat Ba k-35 U.S.C. 119 Pri rity Claim f r Prior Appli ati n

The prior U.S. application(s), including any prior International Application designating the U.S., identified above in item 17B, in turn itself claim(s) foreign priority(ies) as follows:

		Country	Appln. no.	Filed on	
Th	е се	rtified copy(ies) has (h	ave)		
		been filed on filed on	, in prior application	0 /	, which was
		is (are) attached.			
		the International Bureau application in the conti application communicat a U.S. serial number unle stage is not entered. The prosecution of a continu- documents from the fold- to request transfer, retrie enter and make a record the priority documents in stage may not be relied	e priority application that may he may not be relied on without any himing application. This is so be ed by the International Bureau is so the national stage is entered. So erefore, such certified copies making application. An alternative we ers and transfer them to the continue the folders, make suitable record such copies in the Continuing in folders of international application. Notice of April 28, 1987 (10	need to file a certified of speause the certified of splaced in a folder arouch folders are disposely not be available if not be to physically roung application. The individual of the physical of the physic	copy of the priority opy of the priority of is not assigned of of if the national eeded later in the emove the priority resources required se certified copies, untial. Accordingly
19.	Ma	intenance of Cope	ndency of Prior Applic	ation	
NOT	re	he PTO finds it useful if a consponse is filed with the polovember 5, 1985 (1060 0.G	copy of the petition filed in the papers constituting the filing of (prior application exter the continuation appl	ding the term for ication. Notice of
A.		Extension of time in	prior application		
	(Thi:	s item must be compl if the period	eted and the papers filed I set in the prior application	in the prior app on has run.)	lication,
		A petition, fee and reuntil	sponse extends the term	in the pending pr i	or application
		☐ A copy of the pe	etition filed in prior applica	ation is attached.	
В.			or Extension of Time in P		
		(complete this	s item, if previous item no	t applicable)	
		A conditional petition application.	for extension of time is t	peing filed in the	pending prior
		☐ A copy of the co	nditional petition filed in th	ne prior applicatio	n is attached.
		(Added Pages for Ap	olication Transmittal Where Bene		cation(s) Claimed .1]—page 3 of 5)

	Cla	im d			
		(complete applicable item (a), (b) and/or (c) below)			
(a) This application discloses and claims only subject matter disclosed in application whose particulars are set out above and the inventor application are					
		☐ the same.			
		less than those named in the prior application. It is requested that the following inventor(s) identified for the prior application be deleted:			
		(type name(s) of inventor(s) to be deleted)			
(b)		☐ This application discloses and claims additional disclosure by amendment an a new declaration or oath is being filed. With respect to the prior application the inventor(s) in this application are			
		the same.			
		the following additional inventor(s) have been added:			
		(type name(s) of inventor(s) to be added)			
(c)		The inventorship for all the claims in this application are			
` '		the same.			
		not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made			
		is submitted.			
		☐ will be submitted.			

21.	A	band nm nt f Pri r Appli ati n (if applicable)
		Please abandon the prior application at a time while the prior application is pending, or when the petition for extension of time or to revive in that application is granted, and when this application is granted a filing date, so as to make this application copending with said prior application.
NO	TE:	According to the Notice of May 13, 1983 (103, TMOG 6-7), the filing of a continuation or continuation-in- part application is a proper response with respect to a petition for extension of time or a petition to revive and should include the express abandonment of the prior application conditioned upon the granting of the petition and the granting of a filing date to the continuing application.
22.		etition for Suspension of Prosecution for the Time Necessary to le an Amendment
WA	VRNII	WG: "The claims of a new application may be finally rejected in the first Office action in those situations where (1) the new application is a continuing application of, or a substitute for, an earlier application, and (2) all the claims of the new application (a) are drawn to the same invention claimed in the earlier application, and (b) would have been properly finally rejected on the grounds of art of record in the next Office action if they had been entered in the earlier application." MPEP, § 706.07(b), 6th ed., rev.2.
NO	TE:	Where it is possible that the claims on file will give rise to a first action final for this continuation application and for some reason an amendment cannot be filed promptly (e.g., experimental data is being gathered) it may be desirable to file a petition for suspension of prosecution for the time necessary.
		(check the next item, if applicable)
		There is provided herewith a Petition To Suspend Prosecution for the Time Necessary to File An Amendment (New Application Filed Concurrently)
23.	Sr	nall Entity (37 CFR § 1.28(a))
	X	Applicant has established small entity status by the filing of a statement in parent application $08/\underline{774.104}$ on $\underline{12/24/96}$.
WA	RNII	A copy of the statement previously filed is included. **G: See 37 CFR § 1.28(a).
24.	N	OTIFICATION IN PARENT APPLICATION OF THIS FILING
	X	A notification of the filing of this (check one of the following)

A notification of the filing of this (check one of the following)
 □ continuation
 □ continuation-in-part
 ☑ divisional

is being filed in the parent application, from which this application claims priority under 35 U.S.C. \S 120.

(Added Pages for Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed [4-1.1]—page 5 of 5)

IN THE UNITED STATES PATENT AND TRADEMARK FFICE

46906

In re application of: S. Chatterjee Serial No.: 0 8 / 774,104 Group N Filed: December 24, 1996 Examine For: RECOMBINANT N-SMASES AND NUCLE Assistant Commissioner for Patents Washington, D.C. 20231	
NOTIFICATION OF FILI DIVISIONAL OR CONTINUED P	
Notification is hereby being made of the filing continuation continuation-in-part divisional continued prosecution application for this case concurrently herewith. on	of a:
CERTIFICATION UNDER 3 (When using Express Mail, the Express Express Mail certifics	Mail label number is mandatory;
I hereby certify that, on the date shown below, this corre-	spondence is being:
MAILIN	IG
 ✓ deposited with the United States Postal Service in ar for Patents, Washington, D.C. 20231 37 CFR 1.8(a) ✓ with sufficient postage as first class mail. ✓ a: Mailin 	37 CFR 1.10*
TRANSMIS	ET079002454HC
☐ transmitted by facsimile to the Patent and Trademark	
Sign Date: _3/31/99	eanna M. Landry or print name of person certifying)
*WARNING: Each paper or fee filed by Express Mail must	st have the number of the "Express Mail" mailing label

*WARNING: Each paper or fee filed by Express Mail must have the number of the "Express Mail" mailing labe placed thereon prior to mailing. 37 C.F.R. 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will **not** be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

(Notification of Filing of Continuing, Divisional or Continued Prosecution Application [4-9] (page 1 of 2))

SIGNATURE OF PRACTITIONER

Reg. No. 33,860

Tel. No.: (617) 523-3400

Customer No.:

Peter F. Corless

(type or print name of practitioner)

Dike, Bronstein, Roberts & Cushman, LLP

130 Water Street

P.O. Address

Boston, MA 02109

Attorney' Docket No. 46906	PATENT
IN THE UNITED TATES PATENT AND TRADEMARK	OFFICE
In re application of: S. Chatterjee	
Serial No.: 0 8 /774,104 Group No.: 1814 Filed: December 24, 1996 Examiner: D. Mytelka For: RECOMBINANT N-SMASES AND NUCLEIC ACIDS ENCODI	ING SAME
Box Sequence Assistant Commissioner for Patents Washington, D.C. 20231	
SUBMISSION OF "SEQUENCE LISTING," COMPUTER REA AND/OR AMENDMENT PERTAINING THERET FOR BIOTECHNOLOGY INVENTION CONTAINING NUC	O
AND/OR AMINO ACID SEQUENCE	
(check and complete this item, if applicable)	
1. This replies to the Office Letter dated June 2, 1997	 .
NOTE: If these papers are filed before the office letter issues, adequate identification should be made, e.g., in addition to the name of the inventor and title of invention on the "Express Mail" procedure, the serial number from the return post card on number added.	on, the filing date based
A copy of the Office Letter is enclosed.	

CERTIFICATION	N UNDER 37 CFR 1.8(a) and 1.10
I hereby certify that, on the date shown below	w, this correspondence is being:
	MAILING
deposited with the United States Postal for Patents, Washington, D.C. 20231.	Service in an envelope addressed to the Assistant Commissioner
37 CFR 1.8(a)	37 CFR 1.10
with sufficient postage as first class mail.	as "Express Mail Post Office to Addressee" Mailing Label No
	TRANSMISSION
☐ transmitted by facsimile to the Patent and	d Trademark Office.
	Susanim Oillon
Date: 7/2/97	Signature
	Sugan M Dillon

(type or print name of person certifying)

(Submission-Nucleotide and/or Amino Acid Sequence [9-37]-page 1 of 6)



2. Peter F. Corless

(type or print nam of d clarant signing below)

state the following:

ITEMS BEING SUBMITTED

3.	Submitted	In	1-1
4	SUDMITTER	norowith	10/250

(check each item as applicable)

		(encon com nom de appino	u.D.10)	
۹.	K	"Sequence Listing(s)" for the nucleoti in this application. Each "Sequence identifier as required in 37 CFR § 1. 1.823.	E Listing" is assigned a separate	
3.		An amendment to the description are made to the sequence by use of the 37 CFR § 1.821(d).		
Э.	K	A copy of each "Sequence Listing" submitted for this application in computer readable form, in accordance with the requirements of 37 CFR §§ 1.821(e) and 1.824.		
Э.		Please transfer to this application, in accordance with 37 CFR § 1.821(e), the computer readable copy(ies) from applicant's other application identified as follows: In re application of:		
		• •	0	
		Serial No.: 0 / Filed:	Group No.:	
		For	Examiner:	

The Computer readable form(s) of applicant's other application corresponds to the "Sequence Indentifier(s)" of the application as follows:

Computer Readable Form

"Sequence Identifier"

9-216

(other application)

(this application)

(Submission-Nucleotide and/or Amino Acid Sequence [9-37]-page 2 of 6)

(Rel.65-10995 Pub.605) FORM 9-37

	of ano and co The ne	thera ompu ew ap	ipplica: ter rea oplicati	eadable form of a new application is to be identical with the computer readable form tion of the applicant on file in the Office, reference may be made to the other application dable form in lieu of filing a duplicate computer readable form in the new application on shall be accompanied by a letter making such reference to the other application dable form, both of which shall be completely identified." 37 CFR 1.821(e).
E. A statement that the content of each "Sequence each computer readable copy are the same, as required."				tatement that the content of each "Sequence Listing" submitted and mputer readable copy are the same, as required in 37 CFR § 1.821(g).
				Because the statement is not made by a person registered to practice before the Office, the Statement is verified as required in 37 CFR § 1.821(b).
	F.	_	Bec R§	cause this submission is made in fulfilling the requirement under 37 1.821(g), a statement that the submission includes no new matter.
				Because the statement is not made by a person registered to practice before the Office, the statement is verified, as required in 37 CFR § 1.821(g).
AN			D CC	ATEMENT THAT "SEQUENCE LISTING" MPUTER READABLE COPY ARE THE SAME PAPERS SUBMITTED INCLUDES NO NEW MATTER
	l he	ereb	y sta	te:
				(complete applicable item A and/or B)
	A.	X	thos tion	h computer readable form submitted in this application, including se forms requested to be transferred from applicant's other application, is the same as the "Sequence Listing" to which it is indicated to te.
	B.	X		papers accompanying this submission, or for which a request for sfer from applicants' other application, introduce no new matter.
				VERIFICATION
	NOT			a statement must be verified statement if made by a person not registered to practice the Office." 37 CFR § 1.821(f) and (g).
\$	and and stat und fals	I tha I furt eme Ier S e st	t all s her th ents a Sectio atem	are that all statements made herein of my own knowledge are true statements made on information and belief are believed to be true: not these statements were made with the knowledge that willful false and the like so made are punishable by fine or imprisonment, or both in 1001 of Title 18 of the United States Code and that such willful ents may jeopardize the validity of the application or any patent on.
				STATUS
And	dican	t ic		
			antit	, A varified statement
تحت	_		-	
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	_			•
	. AN	AND/OF AND/OF AND/OF And	F. X. AND/OR TI I hereby and that and furth statemed under State	F. A Beccard CFR \$ ST. AND CCAND/OR THAT I hereby star A. A Eac those tion related before I hereby declared that all seand further the statements a under Section false statements as under Section false stat

(Submission-Nucleotide and/or Amino Acid Sequence [9-37]-page 3 of 6)

EXTENSI N F TERM

7.							
NOTE:	bee	en filed after a Non-F	Final Office Action, an exter	nendments)—If a timely and complete responsion of time is not required to permit filition of the shortened statutory period.			
	filir of for	ng and/or entry of a No the shortened statuto allowance. Of cours	otice of Appeal or filing and ory period unless the timely e, if a Notice of Appeal ha	ce Action, an extension of time is required for entry of an additional amendment after by-filed response placed the application in as been filed within the shortened statuto er 10, 1985 (1061 O.G. 34-35).	expiration condition		
NOTE:		See 37 CFR 1.645 for extensions of time in interference proceedings and 37 CFR 1.550(c) for extensions of time in reexamination proceedings.					
8.		The proceedings CFR 1.136 apply		ent application and the provisior	s of 37		
•			(complete (a) or (b) a	s applicable)			
(a)				f time under 37 CFR 1.136 number of months checked belo	w: .		
		ension onths)	Fee for other than small entity	Fee for small entity			
0000	two	e month o months ee months r months	\$ 110.00 \$ 380.00 \$ 900.00 \$ 1,400.00	\$ 55.00 \$190.00 \$450.00 \$700.00			
			Fœ	\$			
If an	ado	ditional extension	of time is required,	please consider this a petition th	erefor.		
		(check	and complete the ne.	xt item, if applicable)			
	_		is deducted from	s already been secured and the factor in the total fee due for the total me			
			Extensio	n fee due with this request \$			
			OR				
(b)	Applicant believes that no extension of term is required. However, this contional petition is being made to provide for the possibility that applicant hinadvertently overlooked the need for a petition for extension of time.						
			FEE PAYM	ENT			
9.		Charge Account	neck in the sum of \$_ No the sun his transmittal is attace				
		•					

(Submission-Nucleotide and/or Amino Acid Sequence [9-37]-page 4 of 6)

FEE DEFICIENCY

10.

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.						
11. X If any additional extension and/or fee is required, charge Account No. 04-1105						
Account No.						
SIGN	ATURE(s)					
	Peter F. Corless					
Juhz,1897	(type or print name of person signing declaration)					
Date 130 Water Street	Signature					
P.O. Address of Signatory						
Boston, MA 02109						
(if applicable) Telephone No. (617) 523-3400 Reg. No. 33,860	□ Inventor(s) □ Assignee of complete interest □ Person authorized to sign on behalf of assignee ■ Attorney or agent of record □ Filed under Rule 34(a) □ Other					
	(specify identity of declarant)					
(complete the fo	llowing, if applicable)					
						
(type name of assignee)						
Address of assignee						
Title of person authorized to sign on behalf of assignee						

A "CERTIFICATE UNDER 37 CFR 3.73(b)" is attached.

Assignment recorded in P10 on	
Reel Frame	Mode
	SIGNATURE OF ATTORNEY
Reg. No.: 33,860	Peter F. Corless
	(type or print name of attorney)
Tel. No.: (617) 523-3400	130 Water Street
•	P.O. Address
	Boston, MA 02109